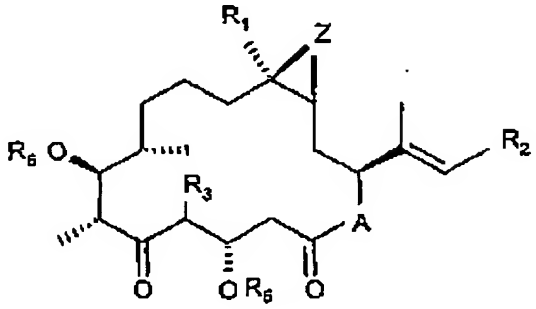
Amendments to the Claims:

Listing of Claims:

Claim 1 (currently amended): An epothilone of formula I



(I)

wherein

A represents O or NR_7[[,]];

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkanoyl in free or protected form, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, or lower acyl amino[[,]];

R_2 is unsubstituted or substituted heteroaryl having at least one nitrogen atom,

R_3 represents hydrogen or lower alkyl[[,]];

R_5 and R_6 are hydrogen, ~~and~~

R_7 is hydrogen or lower alkyl[[,]];

Z is O or a bond[[,]];

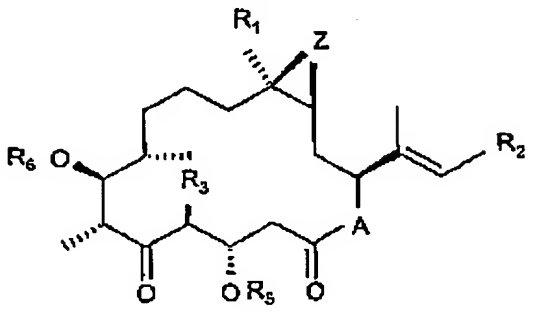
~~under~~ with the proviso that

when R_2 is 2-methyl-thiazolyl and Z is O, R_1 represents lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino, and

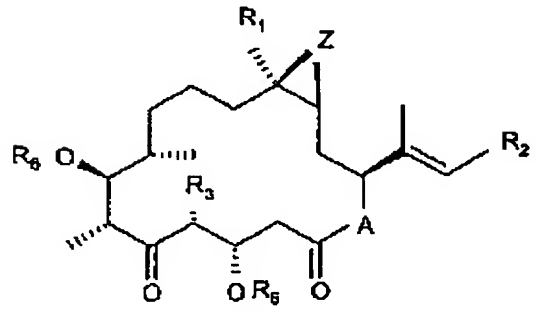
when R_2 is 2-methyl-thiazolyl and Z is a bond, R represents lower alkyl which is substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino,

or a salt thereof.

Claim 2 (currently amended): An epothilone of formula Ia or Ib



(Ia)



(Ib)

wherein

A represents O or NR_7[[,]];

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkanoyl in free or protected form, lower alkoxy, halogen, amino, lower alkyl amino, all-lower alkyl amino, or lower acyl amino[[,]];

R_2 is unsubstituted or substituted heteroaryl having at least one nitrogen atom,

R_3 represents hydrogen or lower alkyl[[,]];

R_5 and R_6 are hydrogen, and

R_7 is hydrogen or lower alkyl[[,]];

Z is O or a bond[[,]];

under the proviso that

when R_2 is 2-methyl-thiazolyl and Z is O, R_1 represents lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]]; and

when R_2 is 2-methyl-thiazolyl and Z is a bond, R_1 represents lower alkyl which is substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]];

or a salt thereof.

Claim 3 (currently amended): The epothilone of formula I according to claim 1 ~~or of formula Ia or Ib according to claim 2~~, wherein

A represents O or NR_7[[,]];

R_1 is hydrogen or lower alkyd which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkanoyl in free or protected form, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, or lower acyl amino[[,]];

R_2 is thiazolyl, oxazolyl, pyridyl, benzothiazolyl, benzoxazolyl or benzoimidazolyl, which in each case is substituted or unsubstituted[[,]];

R_3 represents hydrogen or lower alkyl[[,]];

R_5 and R_6 are hydrogen[[,]]; ~~and~~

R_7 is hydrogen or lower alkyl[[,]];

Z is O or a bond[[,]];

~~under~~ with the proviso that

when R_2 is 2-methyl-thiazolyl and Z is O, R_1 represents lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]]; and

when R_2 is 2-methyl-thiazolyl and Z is a bond, R_1 represents lower alkyl which is substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino, or a salt thereof.

Claim 4 (currently amended): The epothilone of formula I according to claim 1 ~~or of formula Ia or Ib according to claim 2~~, wherein

A represents O or NR_7[[,]];

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower aikyl amino, di-lower alkyl amino or lower acyl amino[[,]];

R_2 is thiazolyl, oxazolyl, pyridyl, benzothiazolyl, which in each case is substituted or unsubstituted[[,]];

R_3 represents hydrogen or lower alkyl[[,]];

R_5 and R_6 are hydrogen[[,]]; ~~and~~

R_7 is hydrogen or lower alkyl[[,]];

Z is O or a bond[[,]]

~~under~~ with the proviso that

when R_2 is 2-methyl-thiazolyl and Z is O, R_1 represents lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]]; and

when R_2 is 2-methyl-thiazolyl and Z is a bond, R_1 represents lower alkyl which is substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]]

or a salt thereof.

Claim 5 (currently amended): The epothilone of formula I according to claim 1 ~~or of formula Ia or Ib according to claim 2~~, wherein

A represents O[[,]];

R_1 is hydrogen or lower alkyl[[,]];

R_2 is 2-methyl-thiazolyl, 2-ethyl-thiazolyl, 2-methylthio-thiazolyl, 2-aminomethyl-thiazolyl, 2-dimethylamino-thiazolyl, 2-fluoromethyl-thiazolyl, 2-methyl-oxazolyl, 3-methyl-pyridinyl, 2-methyl- benzothiazolyl[[,]];

R_3 represents hydrogen or lower alkyl[[,]];

R_5 and R_6 are hydrogen[[,]]; ~~and~~

Z is O or a bond[[,]];

~~under~~ with the proviso that when R_2 is 2-methyl-thiazolyl, Z is O and R_1 represents lower alkyl,

or a salt thereof.

Claim 6 (currently amended): The epothilone of formula I according to claim 1 ~~or of formula Ia or Ib according to claim 2~~, wherein

A represents O[[,]];

R_1 is hydrogen or lower alkyl[[,]];

R_2 is 2-methyl-thiazolyl, 2-ethyl-thiazolyl, 2-methylthio-thiazolyl, 2-aminomethyl-thiazolyl, 2-dimethylamino-thiazolyl, 2-fluoromethyl-thiazolyl, 2-methyl-oxazolyl, 3-methyl-pyridinyl, 2-methyl-benzothiazolyl[[,]];

R_3 represents methyl[[,]];

R_5 and R_6 are hydrogen[[,]]; ~~and~~

Z is O or a bond[[,]];

~~under~~ with the proviso that when R_2 is 2-methyl-thiazolyl, Z is O and R_1 represents lower alkyl,

or a salt thereof.

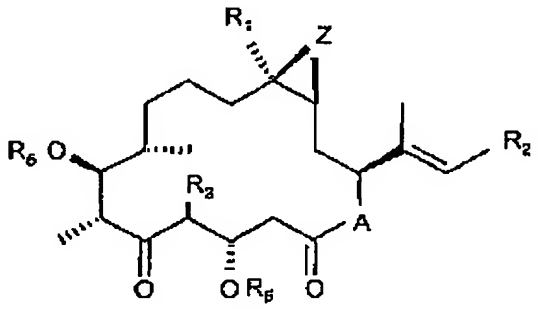
Claim 7 (currently amended): A pharmaceutical composition, comprising an epothilone of formula I ~~or of formula Ia or Ib~~according to claim 1, or a pharmaceutically acceptable salt

thereof, provided that salt-forming groups are present, ~~according to one of claims 1 to 6,~~ and one or more pharmaceutically acceptable carriers.

Claims 8-9 (canceled)

Claim 10 (currently amended): A method for treatment of warm-blooded animals, including humans, in which an therapeutically effective amount of an epothilone of the formula I ~~or of formula Ia or Ib~~ according to ~~any one of claims 1 to 6~~ claim 1 or a pharmaceutically acceptable salt of such a compound is administered to a warm-blooded animal suffering from a tumour disease.

Claim 11 (currently amended): A process for the preparation of an epothilone of formula I,



(I)

wherein

A represents O or NR_7[[,]];

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino[[,]];

R_2 is unsubstituted or substituted heteroaryl having at least one nitrogen atom[[,]];

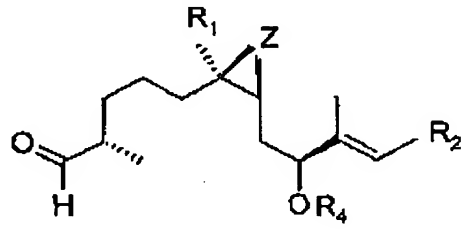
R_3 represents hydrogen or lower alkyl[[,]];

R_5 and R_6 are hydrogen[[,]]; and

R_7 is hydrogen or lower alkyl[[,]]; and

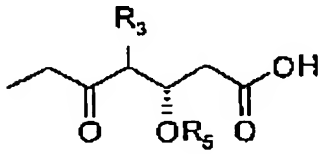
Z is O or a bond[[,]]; or a pharmaceutically acceptable salt thereof; comprising the steps of:

(a) reacting ~~wherein~~ an aldehyde of formula II



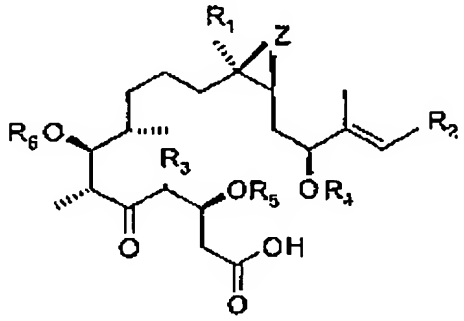
(II)

wherein R_1, R_2 and Z have the meanings as provided above for a compound of formula I and R_4 is a protecting group, ~~is reacted in a first step~~ with an ethylketone of formula III,



(III)

wherein R_5 is H or a protecting group different or identical to R_4 and R3 has the meaning as provided above for a compound of formula I, to provide the aldol of formula IV,



(IV)

wherein R_1, R_2, R_3 and Z have the meanings as provided above for a compound of formula I, R_4 a protecting group, R_5 is H or a protecting group different or identical to R_4 and R_6 is hydrogen[[,]]

~~which~~(b) reacting the aldol of formula IV ~~is reacted in a second step~~ with a reagent capable to introduce a protecting group which is different or identical to R_4 furnishing a carboxylic acid of formula IV,

wherein R_1, R_2, R_3 and Z have the meanings as provided above for a compound of formula I, R_4 a protecting group and R_5 is H or R_5 and R_6 are protecting groups different or identical to R_4[[,]];

~~which~~ (c) reacting the carboxylic acid of formula IV ~~is reacted in a third step~~ with a reagent capable to remove the protecting group R_4 under conditions which do not result in the removal of the protecting groups R_5 and R_6 providing a carboxylic acid of formula IV,

wherein R_1, R_2, R_3 and Z have the meanings as provided above for a compound of formula I, R_4 is hydrogen and R_5 is H or R_5 is H or R_5 and R_6 are protecting groups,

~~which~~ (d) macrolactonizing the carboxylic acid of formula IV ~~in a fourth step is subject of a macrolactonisation reaction~~ providing the epothilone of formula I,

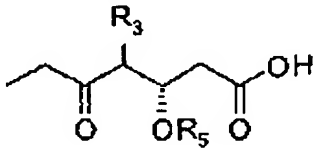
wherein R_1, R_2, R_3 and Z have the meanings as provided above for a compound of formula I, A is O and R_5 is H or R_5 and R_6 are protecting groups[[,]];

~~which~~ (e) reacting the epothilone of formula I ~~is reacted in a fifth step~~ with a reagent capable ~~to remove~~of removing the protecting groups R_5 and R_6 furnishing an epothilone of formula I,

wherein R_1, R_2, R_3, R_5, R_6 and Z have the meanings as provided above for a compound of formula I and A is O[[,]]; and

~~which~~ (f) optionally reacting the epothilone of formula I ~~is, optionally, further transformed~~ into an epothilone of formula I wherein R_1, R_2, R_3, R_5, R_6 and Z have the meanings as provided above for a compound of formula I and A is NR_7, wherein R_7 is hydrogen or lower alkyl.

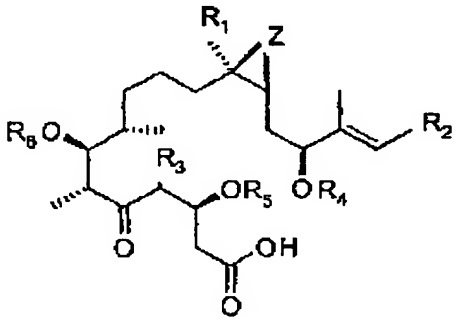
Claim 12 (original): An ethylketone of formula III,



(III)

wherein R_3 has the meaning as provided above for a compound of formula I and R_5 is hydrogen or a protecting group.

Claim 13 (currently amended): An aldol of formula IV,



(IV)

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, lower acyl amino,

R_2 is unsubstituted or substituted heteroaryl[[,]];

R_3 represents hydrogen or lower alkyl[[,]];

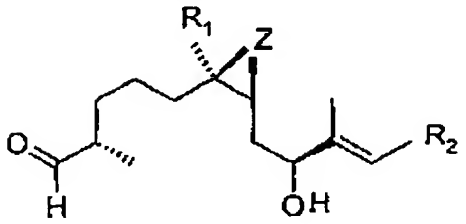
R_4 is hydrogen or a protecting group[[,]];

R_5 is a protecting group different or identical to R_4[[,]];

R_6 is hydrogen or a protecting group different or identical to R_4[[,]]; and

Z is O or a bond.

Claim 14 (currently amended): A process for the preparation of an aldehyde of formula II



(II)

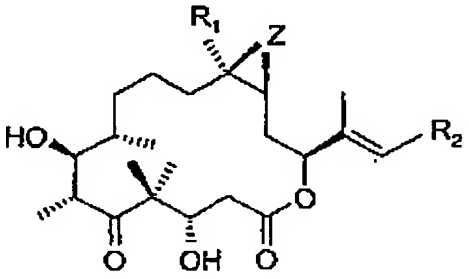
wherein

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, lower acyl amino[[,]];

R_2 is unsubstituted or substituted heteroaryl[[,]];

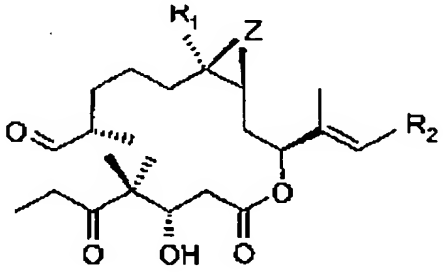
Z is O or a bond[[,]]; comprising the steps of:

~~wherein~~ (a) reacting an epothilone of formula V



(V)

wherein the radicals R_1, R_2 and Z have the meanings as provided for a compound of formula II above, ~~is first reacted~~ with a reagent effecting a retro-aldol reaction furnishing an ester of formula VI



(VI)

wherein the radicals R_1, R_2 and Z have the meanings as provided for a compound of formula II above, which ester is hydrolized in a second step into its components, 4,4-dimethyl-3-hydroxy-5 oxo-heptanoic acid and the aldehyde of formula II as defined above.

Claim 15 (original): A method of separating C4-desmethyl-epothilone B from epothilone G2, which is characterized by chromatography on a Chiralpak-AD column with an eluant containing a lower alkane and a lower alkanol.

Claim 16 (original): A process for the production of C4-desmethyl-epothilone B, which comprises the steps of

a) concentrating epothilones in a culture medium for the biotechnological preparation of epothilones, which medium contains a microorganism suitable for the preparation of epothilones, water and other suitable customary constituents of culture media, whereby a cyclodextrin or a cyclodextrin derivative is added to the medium, or a mixture of two or more of these compounds;

b) separating epothilones from one another, which is characterized by chromatography on a reversed-phase column with an eluant containing a lower alkylcyanide, wherein chromatography is carried out on column material charged with hydrocarbon chains, and an eluant containing a lower alkyinitrile is used; and wherein, if desired, further working up steps and purification steps are possible; and

c) finally separating C4-desmethyl-epothilone B from epothilone G2, by chromatography on a Chiralpak-AD column with an eluant containing a lower alkane, and a lower alkanol.

Claim 17 (new): The epothilone of formula Ia or Ib according to claim 2, wherein

A represents O or NR_7;

R_1 is hydrogen or lower alkyd which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkanoyl in free or protected form, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino, or lower acyl amino;

R_2 is thiazolyl, oxazolyl, pyridyl, benzothiazolyl, benzoxazolyl or benzoimidazolyl, which in each case is substituted or unsubstituted;

R_3 represents hydrogen or lower alkyl;

R_5 and R_6 are hydrogen;

R_7 is hydrogen or lower alkyl;

Z is O or a bond;

with the proviso that

when R_2 is 2-methyl-thiazolyl and Z is O, R_1 represents lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino; and

when R_2 is 2-methyl-thiazolyl and Z is a bond, R_1 represents lower alkyl which is substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino, or a salt thereof.

Claim 18 (new): The epothilone of formula Ia or Ib according to claim 2, wherein

A represents O or NR_7;

R_1 is hydrogen or lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino;

R_2 is thiazolyl, oxazolyl, pyridyl, benzothiazolyl, which in each case is substituted or unsubstituted;

R_3 represents hydrogen or lower alkyl;

R_5 and R_6 are hydrogen;

R_7 is hydrogen or lower alkyl;

Z is O or a bond;

with the proviso that

when R_2 is 2-methyl-thiazolyl and Z is O, R_1 represents lower alkyl which is unsubstituted or substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino; and

when R_2 is 2-methyl-thiazolyl and Z is a bond, R_1 represents lower alkyl which is substituted by hydroxy, lower acyloxy, lower alkoxy, halogen, amino, lower alkyl amino, di-lower alkyl amino or lower acyl amino

or a salt thereof.

Claim 19 (new): The epothilone of formula Ia or Ib according to claim 2, wherein

A represents O;

R_1 is hydrogen or lower alkyl;

R_2 is 2-methyl-thiazolyl, 2-ethyl-thiazolyl, 2-methylthio-thiazolyl, 2-aminomethyl-thiazolyl, 2-dimethylamino-thiazolyl, 2-fluoromethyl-thiazolyl, 2-methyl-oxazolyl, 3-methyl-pyridinyl, 2-methyl- benzothiazolyl;

R_3 represents hydrogen or lower alkyl;

R_5 and R_6 are hydrogen;

Z is O or a bond;

with the proviso that when R_2 is 2-methyl-thiazolyl, Z is O and R_1 represents lower alkyl,

or a salt thereof.

Claim 20 (new): The epothilone of formula Ia or Ib according to claim 2, wherein

A represents O;

R_1 is hydrogen or lower alkyl;

R_2 is 2-methyl-thiazolyl, 2-ethyl-thiazolyl, 2-methylthio-thiazolyl, 2-aminomethyl-thiazolyl, 2-dimethylamino-thiazolyl, 2-fluoromethyl-thiazolyl, 2-methyl-oxazolyl, 3-methyl-pyridinyl, 2-methyl-benzothiazolyl;

R_3 represents methyl;

R_5 and R_6 are hydrogen;

Z is O or a bond;

with the proviso that when R_2 is 2-methyl-thiazolyl, Z is O and R_1 represents lower alkyl, or a salt thereof.

Claim 21 (new): A pharmaceutical composition, comprising an epothilone of formula Ia or Ib according to claim 2, or a pharmaceutically acceptable salt thereof, provided that salt-forming groups are present, one or more pharmaceutically acceptable carriers.

Claim 22 (new): A method for treatment of warm-blooded animals, including humans, in which an therapeutically effective amount of an epothilone of the formula Ia or Ib according to claim 2 or a pharmaceutically acceptable salt of such a compound is administered to a warm-blooded animal suffering from a tumour disease.